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10/826,687

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David Leon

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EXAMINER

ALAM, UZMA

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,687	<b>Applicant(s)</b> LEON ET AL.	
	<b>Examiner</b> UZMA ALAM	<b>Art Unit</b> 2457	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-17, 19-34 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-17 and 19-34 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This action is responsive to the amendment filed September 9, 2008. Claims 1, 5, 9, 11, 15, 19, 21, 26, 32 and 36 are amended. Claims 8, 18 and 35 are cancelled. Claims 1-7, 9-17 and 19-34 and 36 are pending. Claims 1-7, 9-17 and 19-34 and 36 represent a method for adaptively adjusting rate in a stream network.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 9-17 and 19-34 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Ravi et al. US Patent No. 6,292,834. Ravi et al. teaches transmitting streams over a multimedia network (see abstract).

As per claim 1, Ravi teaches a method comprising:

defining in a client in a multimedia streaming network (network 290) at least one parameter (performance variable 410) for determining a rate adaptation operating range (range of bit rate values; column 7, lines 13-15), wherein the streaming network comprises a server configured for providing streaming data to the client, the client having a receiver buffer (playout buffer 366) for storing at least part of the streaming data to the client, the client having a receiver

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buffer for storing at least part of the streaming data to compensate for a difference between data transmission amount by the server and usage amount of the streaming data by the client so as to allow the client to have sufficient amount of streaming data to play out in a non-disruptive manner, and wherein the rate adaption operating range is used for rate adaptation between the server and the client (column 6, lines 31-60; column 7, lines 1-25);

providing to the server information indicative of said at least one parameter (play time and delta play time Figure 7A 710, 730; column 8, lines 26-35);

adapting in the server the data amount to a reception rate based on said at least one parameter, wherein said adapting in the server comprises adjusting a sampling rate of the streaming data (column 6, lines 33-47; increase or decrease bandwidth based on performance variables; column 7, lines 16-25; computing and adjusting playtime; column 8, lines 26-45); and

adjusting in the client packet transfer delay variation based on said adapting (adjust threshold based on sampling; column 7, lines 35-60).

As per claim 2, Ravi teaches the method of claim 1, wherein said at least one parameter comprises a minimum shift amount indicative of a difference between a sampling time and a transmission time of a packet at the server so as to allow the server to carry out said adapting based on the minimum shift amount (decrease bandwidth threshold 512; column 7, lines 35-45).

As per claim 3, Ravi teaches the method of claim 1, wherein said at least one parameter comprises a target shift amount indicative of a shift amount greater than a difference between a sampling time and a transmission time of a packet at the server so as to allow the server to carry

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out said adapting based on the target shift amount (delta playtime and shift amount; column 8, lines 36-65).

As per claim 4, Ravi teaches the method of claim 1, wherein said at least one parameter comprises a number specifying a maximum difference between the number of bytes that has been sent and the number of bytes that have been sampled so as to allow the server to carry out said adapting based on the number (upper bandwidth threshold; column 8, lines 1-35).

As per claim 5, Ravi teaches the method of claim 1, further comprising adapting a sampling rate to the transmission rate in the server based on said at least one parameter (performance variables; column 7, lines 26-34).

As per claim 6, Ravi teaches the method of claim 1, wherein said at least one parameter comprises a clock shift amount for preventing playout disruption in the client (avoiding jitter; column 10, lines 20-32).

As per claim 7, Ravi teaches the method of claim 1, wherein said adapting comprises an adjustment of a transmission rate (adjusting bandwidth; column 7, lines 35-60).

As per claim 9, Ravi teaches the method of claim 1, wherein said adapting comprises an adjustment of Ravith a transmission rate and a sampling rate (column 7, lines 35-60; column 8, lines 26-45).

As per claim 10, Ravi teaches the method of claim 1, wherein said at least one parameter comprises:

a minimum shift amount indicative of a difference between a sampling time and a transmission time of a packet at the server (column 8, lines 50-60);

a target shift amount indicative of a shift amount greater than a difference between a sampling time and a transmission time of a packet at the server (column 8, lines 56-67);

a number specifying a maximum difference between the number of bytes that has been sent and the number of bytes that have been sampled (column 7, lines 60-67); and

a clock shift amount, and wherein two or more of the minimum shift amount, the target shift amount, the specifying number and the clock are sent together to the server (column 8, lines 1-25).

Claims 11-20, 21-25, 26-31 and 32-36 are rejected under the same rationale as claims 1-10 because they disclose a system, software code, terminal and network element employing the method of claims 1-10.

### ***Response to Arguments***

3. Applicant's arguments filed September 9, 2008 have been fully considered but they are not persuasive.

4. Applicant argues that Ravi US Patent No. 6,292,834 does not disclose or suggest that the server adjusts the sampling rate in the rate adaption between the server and client.

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5. In contrast, however, Ravi teaches that *the server, in response to the feedback from the client computer 240, dynamically selects transmission rates in order to better match the varying bandwidth capacity of the network connection* (column 6, lines 41-44). Although the server is responding to information sent to it by the client, it is the server that controls the rate by which the data is streamed to the server. According to the reference, the calculations of the transmission rate and delays are performed on the client and they are transmitted to the server which then adjusts the rate accordingly.

6. Further, Applicants independent claim 1 recites the same limitation as is being taught by the reference. The claim states:

*defining in a client in a multimedia streaming network (network 290) at least one parameter (performance variable 410) for determining a rate adaptation operating range (range of bit rate values; column 7, lines 13-15), wherein the streaming network comprises a server configured for providing streaming data to the client, the client having a receiver buffer (playout buffer 366) for storing at least part of the streaming data to the client, the client having a receiver buffer for storing at least part of the streaming data to compensate for a difference between data transmission amount by the server and usage amount of the streaming data by the client so as to allow the client to have sufficient amount of streaming data to play out in a non-disruptive manner, and wherein the rate adaption operating range is used for rate adaptation between the server and the client* (column 6, lines 31-60; column 7, lines 1-25);

*providing to the server information indicative of said at least one parameter (play time and delta play time Figure 7A 710, 730; column 8, lines 26-35);*

*adapting in the server the data amount to a reception rate based on said at least one parameter, wherein said adapting in the server comprises adjusting a sampling rate of the streaming data* (column 6, lines 33-47; increase or decrease bandwidth based on performance variables; column 7, lines 16-25; computing and adjusting playtime; column 8, lines 26-45); and *adjusting in the client packet transfer delay variation based on said adapting* (adjust threshold based on sampling; column 7, lines 35-60).

Like the reference Ravi, the claim recites that the client determines the rate adaption operating range. According to the claim, the client then provides the server this information indicative of at least one parameter. The server then adjusts the rate bases on this provided information. Ravi teaches these limitations of the claims in the cited portions above and therefore anticipates the claim.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to UZMA ALAM whose telephone number is (571)272-3995.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Uzma Alam  
Ua  
November 22, 2008

/ARIO ETIENNE/  
Supervisory Patent Examiner, Art Unit 2457